

POWER NOTEBOOKS

INTRODUCTION

You can now buy a well-designed laptop capable of running everyday software for less than £600. But what if you need to take on more complicated tasks, such as video editing? Can you buy a notebook that can handle this, and if so, how much will it cost?

This month we look at six notebooks that are ready to take on even the toughest tasks, but still cost less than £999 including VAT. Three are traditional desktop replacement notebooks, giving you all the power of a desktop PC in a smaller, neater case. Three use Intel's latest dual-core mobile processors, so they are more portable but still up to tough computing tasks.

So whether you need a heavyweight notebook for the hardest computing work or a nimbler system that punches above its weight, we'll help you find the ideal computer for a lower price than you'd think.

Seth Barton

Notebooks and video expert

seth@computershopper.co.uk



UPWARDLY MOBILE

Spending £999 will ensure your notebook packs a mean punch – but do you choose a desktop replacement or a portable dual-core PC? Whether you want a system for the home or the road, these powerful laptops won't let you down

Choosing a... Power Notebook

If you have a budget of £999, you should be able to buy a powerful notebook with all the features you need. You'll also find there's an impressive range of notebooks available for this price with very different specifications and talents, so it pays to consider your options before you buy.

SIZE MATTERS

This month we've tested two distinct types of notebook computer. Three are traditional desktop replacement notebooks. They're powerful, with big screens and large keyboards. These are ideal for use on a desk if you don't want the bulk of a normal desktop PC. They don't usually have good battery life, but HP's Pavilion is an exception.

We've also tested three mobile dual-core notebooks. These are usually smaller and lighter, with batteries that can run for a few hours when away from the mains. They have smaller displays, and are more suitable if you want a powerful notebook that you can carry around.

POWER TO THE PEOPLE

If you have tough computing tasks to complete, a powerful notebook will save you precious time. Different notebooks excel in different areas, though,

so you should think about what kind of tasks you perform most frequently.

If you use your notebook for video editing, it's worth looking at the three dual-core notebooks on page 72. These use special processors that can cut down on the time required for video encoding and recoding if you have the right software. Our video-encoding test results on page 74 show how great a difference a dual-core processor can make.

If you want to edit large digital photos or run several demanding programs simultaneously, it's important to get a notebook with plenty of memory. The results of our image-manipulation test on page 74 show that notebooks with 1GB of memory perform far better in this kind of memory-intensive task.

MORE THAN A GAME

Most people think that 3D graphics are useful only for playing games, but this isn't strictly true. Other applications, such as Google Earth, also use a 3D graphics processor, and the upcoming Windows Vista operating system includes an advanced user interface that can exploit the most powerful graphics hardware. If you don't play games, a powerful 3D chip is still not essential, but it is useful.



This month

Portable Dual-Core Notebooks

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If you want to play games, a powerful 3D processor is essential. Mesh and Rock have used an ATI Mobility Radeon X700 graphics chip that can run games such as Doom 3 at a good frame rate even with high graphical quality. The Fujitsu Siemens and Toshiba notebooks can play games such as Doom 3, but you will need to reduce the detail levels. The HP Pavilion and Acer Travelmate are unsuitable for playing modern games.

STORE ROOM

If you use your computer to store MP3 files, video files and digital photos, it's important to have a large hard disk. All the notebooks in this group have decent-sized hard disks, with the smallest holding up to 80GB of data. Those requiring plenty of storage should look at the Mesh Pegasus, with its 120GB single hard disk, or the HP Pavilion, with its pair of 100GB hard disks.

The more data you have, the more important it is to make sure that you have a backup copy somewhere safe. Fortunately, every notebook here has a DVD writer that can burn 8.5GB of data to a single disc.

SIGHT AND SOUND

All the photos and music stored on your notebook are of little use without some way to experience them. If you want to edit and view photographs, it's important to buy a notebook

with a good-quality display. Our reviews explain which computers have bright, clear displays with good colour reproduction.

The best speakers in the group are in Toshiba's Satellite, though gamers will be more than happy with the bass produced by the Mesh Pegasus and Rock Quaddra. Remember that you always have the option of using headphones or external speakers instead.

TOUCH SENSITIVE

If you plan to do a lot of typing, a good keyboard is essential. Our favourites here are found on the Fujitsu Siemens Amilo Pi and the HP Pavilion. Both have excellent layout and key feedback. If you use the keyboard only for playing games or typing search queries into Google, however, you shouldn't be overly concerned.

Touch pads are essential if you use your notebook away from a desk. Most of the touch pads in this group are accurate and have good buttons, but Acer's pad is disappointing.

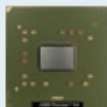
ANY PORT IN A STORM

A good set of ports is crucial for getting the most out of – and into – your notebook. Fortunately, all the notebooks in this group have at least three USB ports, a memory card reader and FireWire ports. With four USB ports apiece, the Toshiba Satellite and HP Pavilion are particularly good for gadget lovers.

Core Duo v Turion

Find out the key differences between the Intel and AMD processors featured in this month's power notebooks.

PROCESSOR	INTEL CORE DUO	AMD TURION 64
Processor socket	Socket 479	Socket 754
Clock speed	1.66 to 2.16GHz	1.6 to 2.4GHz
Effective FSB speed	667MHz	800MHz
Dual core	Yes	No
Level I cache	2x 32KB	128KB
Level II cache	2MB (shared between two cores)	512KB to 1MB
Max power usage	31W	25 to 35W
Manufacturing process	65nm	90nm
Integrated memory controller	No	Yes
64-bit support	No	Yes
Strengths	Two cores accelerate processor-intensive multi-threaded applications such as our video encoding test. 65nm process means it produces less heat, improving battery life and cutting cooling noise.	Integrated memory controller allows faster access to RAM. Full 64-bit support will benefit future applications and operating systems.





ACER Travelmate 3012 WTMi

★★★★

£976 inc VAT

Acer's Travelmate is the smallest notebook in the group, but the dual-core processor tucked away inside means it's still powerful.

FEATURES

The Travelmate's chassis is quite rigid, and its keyboard has been efficiently squeezed into the available space. The keys are well sized and have enough depth and feedback to make typing comfortable. The tiny touch pad is not as accurate as most here, and its buttons are small and indistinct when pressed. You'll want to use a mouse whenever possible.

There is no internal optical drive, but a lightweight external DVD writer is included. This shouldn't bother business users, but if you regularly use your DVD drive it will be annoying. A six-pin FireWire port is provided for the DVD writer, and there are three USB ports and a memory card reader. A pair of buttons on the front allows you to enable and disable wireless networking and Bluetooth, but we found they could easily be activated inadvertently.

The display is reasonably bright and reproduces colours well but is marred by a grainy finish. This reduces the clarity of the desktop and compounds the problems of squeezing a 1,280x800 resolution on to a 12.1" screen.

PERFORMANCE

The Travelmate uses a dual-core Intel Core Duo T2300 processor. This scored an impressive 102 overall in our benchmarks. But with only 512MB of RAM, it couldn't keep up with the Fujitsu Siemens Amilo and Toshiba Satellite.

The integrated graphics chip is unsuitable for gaming; the Travelmate failed our Doom 3 test. Two batteries are included. The larger one powered the notebook for three-and-a-half hours, the best battery life in the group.

VERDICT

The Acer Travelmate is powerful when you consider its size. But its grainy screen and poor touch pad hold it back. It's not a great buy.

SUMMARY

- ✓ Good performance
- ✗ Grainy display
- ✗ Poor touch pad

DUAL-CORE NOTEBOOK 1.66GHz Intel Core Duo T2300, 512MB RAM, 80GB hard disk, Intel GMA 950 integrated graphics, DVD+/-RW +/-DL, 12.1" widescreen LCD
SUPPLIER Acer Notebooks 08701 670819
DETAILS www.acer.com



FUJITSU SIEMENS Amilo Pi 1536

★★★★★

£939 inc VAT



Fujitsu Siemens' Amilo Pi is a well-designed, well-built notebook and it has plenty of power for tough computing tasks.

FEATURES

The Amilo's 15.4" gloss-coated display was a little pinkish in our white screen test. A slight lack of brightness caused colours to seem muted. It lacks the vibrancy seen in the larger 17" displays. But it's sharp and its resolution of 1,280x800 is sufficient for most tasks.

The keyboard and touch pad are great. The keyboard is well laid out, using the whole width of the chassis to good effect. The keys have a firm and positive action with plenty of travel. The touch pad is large and correctly proportioned to the screen. It's accurate, with big buttons and a scroll area on the right.

The chassis itself is well constructed. It feels solid and flexes only slightly under pressure. It has three USB ports, a memory card reader and a handy switch for disabling the wireless network adaptor. There's a dedicated volume control dial, but the speakers are very tinny and quiet. Its 100GB hard disk means there's plenty of room for storing media files.

PERFORMANCE

With an Intel Core Duo T2300 processor and 1GB of RAM, the Amilo Pi produced the best scores in our benchmark tests. It scored 117 points overall and an impressive 156 in our video-encoding test.

The Amilo uses an ATI Mobility Radeon X1400 graphics chipset. It managed 11.0fps in our tough Doom 3 test, and disabling the anti-aliasing made the game perfectly playable. The battery lasted just over three hours.

VERDICT

The Amilo's display isn't the best in the group, but the rest of the notebook is well designed and well constructed, and it's also very fast. Toshiba's Satellite comes close, but as the Amilo costs £60 less, this is the best-value dual-core notebook in the group.

SUMMARY

- ✓ Great all-round performance
- ✓ Excellent keyboard and touch pad
- ✗ Poor speakers

DUAL-CORE NOTEBOOK 1.66GHz Intel Core Duo T2300, 1GB RAM, 100GB hard disk, 128MB ATI Mobility Radeon X1400 graphics, DVD+/-RW +/-DL, 15.4" widescreen LCD
SUPPLIER www.dabs.com
DETAILS www.fujitsu-siemens.com



TOSHIBA Satellite A100-163

★★★★★

£999 inc VAT

Toshiba's Satellite is nearly identical to the Fujitsu Siemens Amilo Pi. It has a better screen and speakers, but it is a bit more expensive and its keyboard is slightly cramped.

FEATURES

The Satellite's speakers are excellent. They're well balanced and clear, with enough volume for a small room. It is equipped with a handy dedicated volume dial, and there are short-cut buttons to the left of the keyboard for playing media files.

Unfortunately, these short-cut keys limit the size of the main keyboard. Some keys are smaller than we'd like; if you type a lot you will prefer Fujitsu Siemens' layout. However, apart from this problem, the keys are excellent, with good depth of travel and feedback. The track pad is small but accurate and its buttons are neatly integrated into the curve of the chassis.

The chassis is well built and feels sturdy. There's a good range of connectors, including four USB ports and a memory card reader. A convenient switch allows you to disable the wireless network adaptor quickly.

Only the larger 17" screens performed better than the Satellite's display. Our white test was displayed with a slight bluish tinge and there was a little banding in our greyscale test, but colours were reproduced accurately.

PERFORMANCE

Like Fujitsu Siemens, Toshiba has used an Intel Core Duo T2300 processor with 1GB of RAM. It coped well with every demanding task in our benchmarks, producing an overall score of 115.

Toshiba has fitted an ATI Mobility Radeon X1400 graphics processor. It scored 11.0fps in our Doom 3 test and is suitable for casual gaming. The battery lasted just over three hours.

VERDICT

The Satellite is similar to the Fujitsu Siemens Amilo Pi but has a slightly smaller hard disk and costs a bit more. It's a good choice if you regularly use your notebook's speakers, but otherwise the Amilo is a better buy.

SUMMARY

- ✓ Great all-round performance
- ✓ Excellent speakers
- ✗ Audio controls constrict keyboard space

DUAL-CORE NOTEBOOK 1.66GHz Intel Core Duo T2300, 1GB RAM, 80GB hard disk, 128MB ATI Mobility Radeon X1400 graphics, DVD+/-RW +/-DL, 15.4" widescreen LCD
SUPPLIER www.microanvika.com
DETAILS www.toshiba.co.uk



HP Pavilion dv8135EA



£999 inc VAT

HP's Pavilion dv8135EA is a large desktop replacement notebook. Unusually, it has two enormous 100GB hard disks.

FEATURES

Notebook hard disks are smaller than desktop ones, so even the best notebooks tend not to have too much storage space. HP has got around this problem by putting a pair of hard disks in the Pavilion. It has an enormous available capacity of 186.1GB.

The front edge of the notebook is a single long grille that hides a pair of speakers. These are loud and well balanced, but not as clear as the Toshiba Satellite's. A convenient remote control is stored in one of two PC card slots.

The keyboard includes a number pad, and is well laid out with no small keys. The keys are springy and have good depth of travel. The touch pad is large and wide. It's very accurate and the buttons have a nice click to them.

The 17" display has a resolution of 1,440x900, which provides over 25 per cent more desktop space than a 1,280x800 display. It did well in our tests but suffered from a slight graininess throughout and it couldn't match the brightness of the Mesh Pegasus or Rock Quaddra displays.

PERFORMANCE

The Pavilion's AMD Turion 64 ML-32 processor runs at 1.8GHz, but it has only 512KB of cache memory and isn't as fast as we'd hoped. HP has included 1GB of RAM, though, so the Pavilion produced a decent score of 86 overall in our benchmarks.

The ATI Mobility Radeon Xpress 200 graphics chipset isn't up to much. It ran our Doom 3 test at just 2.8fps. This kind of notebook is designed to be used on a desk, but its battery ran for an impressive three hours.

VERDICT

If your priorities are a good keyboard and lots of storage space, the Pavilion should be ideal. If not, there are better buys in this group.

SUMMARY

- ✓ Two hard disks
- ✓ Great keyboard and mouse
- ✗ No good for gaming

DESKTOP REPLACEMENT NOTEBOOK 1.8GHz AMD Turion 64 ML-32, 1GB RAM, two 100GB hard disks, ATI Mobility Radeon Xpress 200 graphics, DVD +/-RW DL, 17" widescreen LCD
SUPPLIER HP 08452 704215
DETAILS www.hp.com/uk



MESH Pegasus 3170 CSX



£999 inc VAT



Mesh's Pegasus is a slim desktop replacement notebook with a large, glossy display and powerful 3D graphics.

FEATURES

The Pegasus's gloss-coated 17" display has a resolution of 1,440x900, which is useful for complex applications such as photo or video editing. It's the best display in the group, and passed all our image-quality tests with ease.

The large chassis allows space for a keyboard with number pad. However, this means some other keys are a little small. The keys lack some of the depth and feedback we'd expect, but the touch pad is large and accurate.

The chassis feels solid, but as it weighs 3.5kg it's not likely to travel far from a desk. There's a memory card reader on the front and three USB ports for external devices. Two speakers sit above the keyboard, and another is mounted beneath the chassis to provide bass. It doesn't sound as good as the Toshiba Satellite, but with plenty of volume and bass it's perfect for gaming.

PERFORMANCE

The Pegasus's 1.6GHz AMD Turion 64 MT-30 processor is the slowest in the desktop replacement group, but with 1GB of RAM it performed well in our benchmarks. It scored 84 points overall, slightly behind HP's Pavilion.

This score might be average, but its 3D performance is out of the ordinary. The ATI Mobility Radeon X700 graphics chipset used here is set to run slightly faster than the one in Rock's notebook, and it ran our Doom 3 test at 25.9fps. This notebook is ready to play the most demanding 3D games, although you may have to reduce detail levels to get a playable frame rate on the very latest titles.

VERDICT

Mesh's Pegasus is big, powerful and ideal for 3D games. It's not as powerful in 2D tasks as the dual-core notebooks, but if you want a versatile computer for family use, it's a great choice.

SUMMARY

- ✓ Superb display
- ✓ Good 3D performance
- ✗ Poor keyboard layout

DESKTOP REPLACEMENT NOTEBOOK 1.6GHz AMD Turion 64 MT-30, 1GB RAM, 120GB hard disk, 256MB ATI Mobility Radeon X700 graphics, DVD +/-RW DL, 17" widescreen LCD
SUPPLIER Mesh Computers 08700 464747
DETAILS www.meshcomputers.com



ROCK Quaddra T64



£999 inc VAT

Rock's Quaddra T64 uses the same chassis as Mesh's Pegasus. It has less memory and is not as powerful, but it has an impressive three-year warranty.

FEATURES

On the outside the only difference between the Quaddra and Mesh's Pegasus is the Rock logo on its lid. Inside there's the same excellent 17" display and disappointing keyboard layout. This isn't the ideal notebook for those who want to sit and type all day. Both the Pegasus and Quaddra have Bluetooth built in.

Rock has fitted an 80GB hard disk instead of the 120GB model used by Mesh. This could be annoying if you want to store lots of media files or install several 3D games at once, but otherwise 80GB should be sufficient. However, Rock's warranty is better. It covers parts and labour for three years, compared to the single year of cover with other notebooks here.

PERFORMANCE

Rock has fitted a slightly faster 1.8GHz AMD Turion 64 MT-34 processor, but only 512MB of RAM. This is sufficient for day-to-day tasks, but you'll notice the difference when running demanding applications such as our image-manipulation benchmark, or when running two applications at once. The Quaddra's overall score of 76 in our benchmarks is the lowest in this test.

The 3D performance is better. Rock uses the same ATI Mobility Radeon X700 graphics processor as Mesh, but this one runs at a lower clock speed. It ran our Doom 3 test at 22.1fps, and will run any modern game if you're prepared to adjust the detail levels a little.

VERDICT

The Quaddra has a great warranty and is capable of playing recent 3D games. Mesh's Pegasus has 1GB of memory, making it significantly faster in 2D, and a larger hard disk. It's a tough choice between the two, but we prefer the Pegasus.

SUMMARY

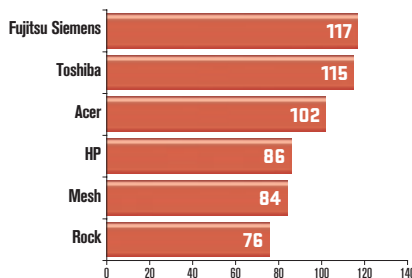
- ✓ Great display and 3D performance
- ✓ Three-year warranty
- ✗ Poor keyboard layout

DESKTOP REPLACEMENT NOTEBOOK 1.8GHz AMD Turion 64 MT-34, 512MB RAM, 80GB hard disk, 256MB ATI Mobility Radeon X700 graphics, DVD +/-RW +/-DL, 17" widescreen LCD
SUPPLIER Rock Direct 08709 909090
DETAILS www.rockdirect.com

BENCHMARKS

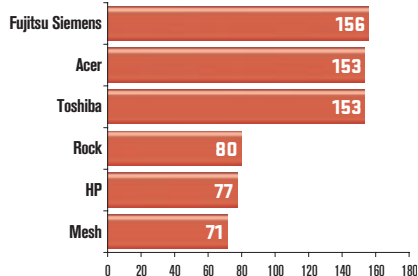
2D Performance Shopper application tests and PCMark04

Overall



SETTINGS We run our application tests at the notebook's native resolution in 32-bit colour
WEB www.computershopper.co.uk

Video-Encoding Test

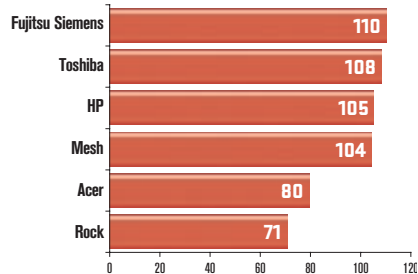


Computer Shopper's 2D benchmarks are designed to show how PCs stand up to the toughest tasks Windows can throw at them. Today's PCs have no problem running office applications such as Word and Excel, so we have chosen to focus our tests on areas where you could experience difficulties.

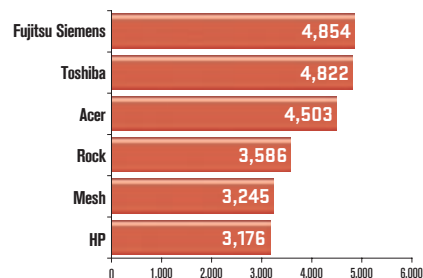
In the new version there are four scripts. Encoding a short video to MPEG 2 format is an extremely processor-intensive task that anyone interested in transferring home videos to DVD will have to tackle. Our image-editing test simulates a session of photo enhancement using Paint Shop Pro X, culminating with the composition of a panorama from a set of digital snaps. In our third test, a set of audio files is ripped to MP3 format. Finally, we have a multi-tasking test designed to test the real-life benefits of today's Hyper-Threaded and dual-core processors. This test compresses a DVD for playback on a Pocket PC at the same time as running our image-editing test.

Figures are relative to a reference Evesham Athlon 64 3500+, which scores 100 in all tests.

Image-Editing Test



PCMark04



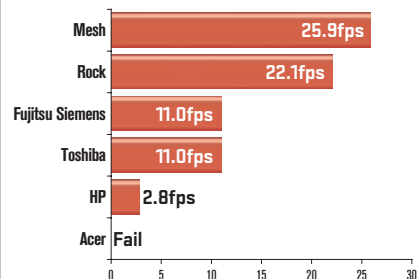
SETTINGS We run PCMark04 at the notebook's native resolution and in 32-bit colour
WEB www.futuremark.com

As well as our own benchmarks, we test all desktop and notebook PCs using Futuremark's PCMark04. You can download a free version of PCMark04 from www.futuremark.com/download, so you can compare our results with those from your own computer.

PCMark04 performs a variety of tests to measure system performance. These include testing the hard disk, memory, processor and graphics. All the tests mimic the stresses placed on your computer by actual applications, giving a fair indication of how powerful a PC is.

3D Performance Doom 3

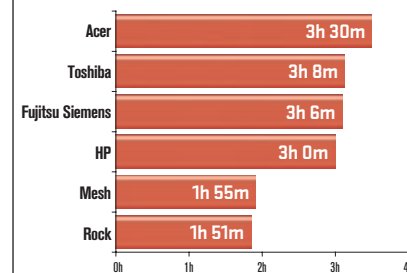
Doom 3



SETTINGS 1,024x768 resolution, high quality, 4x AA
WEB www.doom3.com

Our Doom 3 benchmark tests whether a PC has the power needed to play cutting-edge 3D games with ease. We've made the test harder, by including more outdoor scenes in it. A good score here indicates that a PC should cope with any graphically intense 3D game coming on to the market today.

Battery life Runtime



Our new battery test involves light browser use with the display at its middle brightness setting.

Labs verdict Power notebooks

Most of the notebooks in this test are impressively powerful in Windows, and several are capable of playing the latest 3D games as well. So whether you want a heavyweight computer for your desk or a more portable model, you'll find the perfect choice here.

If you want a traditional desktop replacement notebook, you should choose between the very similar Mesh Pegasus and Rock Quaddra. Both have great screens and can play the latest 3D games. The Quaddra

has a superb three-year warranty, but we prefer the Pegasus because of its faster Windows performance and larger hard disk. It wins our Best Buy award.

If you'd prefer something a little lighter with better battery life, we recommend the Fujitsu Siemens Amilo Pi. It has a battery that lasts for over three hours, and a dual-core processor that charged through our benchmarks. It's even capable of playing some 3D games. It also wins our Best Buy award.

Desktop Replacement Notebook



MESH
Pegasus 3170 CSX
 ★★★★★



Portable Dual-Core Notebook



FUJITSU SIEMENS
Amilo Pi 1536
 ★★★★★



POWER NOTEBOOKS

		★ BEST BUY		★ BEST BUY		
MANUFACTURER	ACER	FUJITSU SIEMENS	TOSHIBA	HP	MESH	ROCK
Model	Travelmate 3012 WTMi	Amilo Pi 1536	Satellite A100-163	Pavilion dv8135EA	Pegasus 3170 CSX	Quaddra T64
Rating	★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Processor	Intel Core Duo T2300	Intel Core Duo T2300	Intel Core Duo T2300	AMD Turion 64 ML-32	AMD Turion 64 MT-30	AMD Turion 64 MT-34
Speed	1.66GHz	1.66GHz	1.66GHz	1.8GHz	1.6GHz	1.8GHz
Memory installed	512MB	1GB	1GB	1GB	1GB	512MB
Memory slots (free)	2 (0)	2 (0)	2 (0)	2 (0)	2 (0)	2 (0)
Max memory	2GB	2GB	2GB	2GB	2GB	2GB
BIOS	Phoenix	Phoenix	Phoenix	Phoenix	AMI	AMI
Dimensions(HxWxD)	32x297x210mm	43x359x268mm	40x359x267mm	46x397x282mm	35x395x278mm	35x395x278mm
Weight	1.5kg	3.1kg	2.8kg	3.4kg	3.5kg	3.5kg
Sound	Realtek HD audio	Realtek HD audio	Realtek HD audio	Conexant AMC	Realtek HD audio	Realtek HD audio
Pointing device	Touch pad	Touch pad	Touch pad	Touch pad	Touch pad	Touch pad
DISPLAY						
Screen size	12.1"	15.4"	15.4"	17.0"	17.0"	17.0"
Graphics adaptor	Intel Graphics Media Accelerator 950	ATI Mobility Radeon X1400	ATI Mobility Radeon X1400	ATI Mobility Radeon Xpress 200	ATI Mobility Radeon X700	ATI Mobility Radeon X700
Graphics outputs	D-sub	DVI, S-video	D-sub, S-video	D-sub, S-video	DVI, S-video	DVI, S-video
Graphics memory	Up to 224MB shared	128MB	128MB	128MB	256MB	256MB
Native resolution	1,280x800	1,280x800	1,280x800	1,440x900	1,440x900	1,440x900
STORAGE						
Hard disk (available)	80GB (74.0GB)	100GB (93.1GB)	80GB (74.3GB)	2x 100GB (186.1GB)	120GB (108.0GB)	80GB (71.1GB)
Optical drive	DVD +/-RW +/-DL	DVD +/-RW +/-DL	DVD +/-RW +/-DL	DVD +/-RW DL	DVD +/-RW DL	DVD +/-RW +/-DL
Optical drive speeds	8X DVD+R, 8X DVD-R, 4X DVD+RW, 4X DVD-RW, 4X DVD+R DL, 4X DVD-R DL, 5X DVD-RAM, 24X CD-R, 24X CD-RW, 8X DVD-ROM, 24X CD-ROM	8X DVD+R, 8X DVD-R, 8X DVD+RW, 6X DVD-RW, 4X DVD+R DL, 4X DVD-R DL, 24X CD-R, 16X CD-RW, 8X DVD-ROM, 24X CD-ROM	8X DVD+R, 8X DVD-R, 4X DVD+RW, 4X DVD-RW, 2.4X DVD+R DL, 2X DVD-R DL, 5X DVD-RAM, 24X CD-R, 24X CD-RW, 8X DVD-ROM, 24X CD-ROM	8X DVD+R, 8X DVD-R, 4X DVD+RW, 4X DVD-RW, 2.4X DVD+R DL, 24X CD-R, 10X CD-RW, 8X DVD-ROM, 24X CD-ROM	8X DVD+R, 8X DVD-R, 8X DVD+RW, 6X DVD-RW, 4X DVD+R DL, 24X CD-R, 24X CD-RW, 8X DVD-ROM, 24X CD-ROM	8X DVD+R, 8X DVD-R, 8X DVD+RW, 6X DVD-RW, 4X DVD+R DL, 4X DVD-R DL, 24X CD-R, 16X CD-RW, 8X DVD-ROM, 24X CD-ROM
Floppy disk	No	No	No	Optional £45	Optional £23	Optional £35
PORTS AND EXPANSION						
USB2 ports	3	3	4	4	3	3
FireWire	1	1	1	1	1	1
Infrared port	Yes	No	No	Yes (remote control only)	Yes	Yes
Bluetooth	Yes	No	No	Yes	Yes	Yes
Networking	10/100/1,000 wired, 802.11a/b/g	10/100/1,000 wired, 802.11a/b/g	10/100/1,000 wired, 802.11a/b/g	10/100/1,000 wired, 802.11a/b/g	10/100/1,000 wired, 802.11b/g	10/100/1,000 wired, 802.11b/g
PC card slots	1	1	1	2	1	1
Modem	Yes	Yes	Yes	Yes	Yes	Yes
Legacy ports	None	None	None	None	None	None
Other ports	Mini-jack S/PDIF out, memory card reader (supports SD, MMC, MS, xD)	Mini-jack S/PDIF out, memory card reader (supports SD, MMC, MS)	Memory card reader (supports SD, MS, xD)	Mini-jack S/PDIF out, memory card reader (supports SD, MMC, MS, SM, xD), HP expansion port	Mini-jack S/PDIF out, memory card reader (supports SD, MMC, MS, xD)	Mini-jack S/PDIF out, memory card reader (supports SD, MMC, MS, xD)
EXTRAS						
Carrying case	No	No	No	HP leather carry case £53 inc VAT	Yes	Yes
Direct CD control	No	No	Yes	No	No	No
Operating system	Windows XP Professional	Windows XP Home	Windows XP Home	Windows XP Home	Windows XP Home	Windows XP Home
Operating system restore option	Recovery partition	Recovery disc	Recovery disc	Recovery disc	Recovery disc	Windows disc and recovery partition
Software included	CyberLink PowerDVD 6, NTI CD-Maker 7	Microsoft Works 8, Ahead Nero 6, InterVideo WinDVD 5	Microsoft Works 8.5, Microsoft Office OneNote 2003, Sonic RecordNow!, InterVideo WinDVD, InterVideo WinDVD Creator 2	Microsoft Works Suite 2005, InterVideo WinDVD 5, Sonic Digital MediaPlus 7 (Sonic RecordNow, Sonic MyDVD, Sonic Easy Archive, Sonic Express Labeler)	Microsoft Works 8.5, CyberLink PowerDVD 6, Power2Go 4, PowerProducer 3, PowerDirector 3, PowerBackup 1.1, PowerCinema 4, Medi@Show 3	Roxio Creator 7, BullGuard Anti-Virus 5.1, Microsoft Works 8
Other standard accessories	Built-in 1.3MP webcam, three-cell mini battery	None	None	Mini remote control	None	None
Optional extras	Extra battery £99 inc VAT, Bluetooth VoIP phone £39 inc VAT	Extra battery £106 inc VAT, Fujitsu Siemens wireless keyboard and mouse £50 inc VAT	None	HP Personal Media Drive 160GB £99 inc VAT, HP Personal Media Drive 300GB £199 inc VAT, Extra battery £99 inc VAT	Extra battery £70 inc VAT	Internal digital TV tuner £93 inc VAT
BUYING INFORMATION						
Company founded	1979	1999	Notebook division: 1985	1939	1987	1992
Employees	6,000	Not disclosed	Not disclosed	140,000	275	50
Tech support staff	150+	40	Not disclosed	Not disclosed	40	6
Tech support times	Mon-Fri 9am-5pm	Mon-Fri 9am-5.30pm	Mon-Fri 8am-6pm	Mon-Fri 8am-6pm	Mon-Fri 9am-5.30pm	Mon-Fri 9am-5pm, Sat 10am-2pm
Parts and labour warranty	One year collect and return	One year collect and return	One year collect and return	One year collect and return	One year collect and return	Three years collect and return
Price inc VAT ex delivery	£976	£939	£999	£999	£999	£999
Price ex VAT	£831	£799	£850	£850	£850	£850
Details	www.acer.com	www.fujitsu-siemens.co.uk	www.toshiba.co.uk	www.hp.com/uk	www.meshcomputers.com	www.rockdirect.com
Supplier	Acer Notebooks	Dabs	Micro Anvika	HP	Mesh Computers	Rock
Phone	08701 670819	Web only	020 7467 6050	08452 704215	08700 464747	08709 909090
Web address	www.acer.com	www.dabs.com	www.microanvika.com	www.hp.com/uk	www.meshcomputers.com	www.rockdirect.com